

ATTACHMENT A Remarks

Claims 14-30 stand pending in the present application. By this Amendment, Applicants have canceled claims 1-13 and added new claims 14-28 where claims 14-22 and 24-27 correspond to now canceled claims 1-13, respectively, claims 28-30 correspond to allowable claims 5-7, with claim 28 being claim 5 rewritten in independent form. Applicants respectfully submit that the present application is in condition for allowance based on the discussion which follows.

Claim 4 was objected to for containing a typographical error which has now been rendered moot by canceling claim 4 and rewriting it as new claim 17.

Claims 1-4 and 10-13 were rejected under 35 U.S.C. § 103 as being unpatentable over Schouenborg in view of Bliss. The Examiner alleges that Schouenborg discloses a device (a probe of a hard tube or rod-shape) for determining vibration characteristics of substantially ellipsoid articles and having a microphone directed to the ellipsoid articles for picking up acoustic vibrations generated by the article.

Contrary to the Examiner's allegation, Schouenborg fails to teach or suggest the claimed device having a microphone arranged adjacent to and directed to the article to pick up acoustic vibrations generated by the article and/or a single processor for processing the signals picked up by the microphone for determining vibration characteristics of the article itself. In Schouenborg, the microphone picks up the vibration of a glass rod, not the ellipsoid article tapped.

Novelty in part of the present invention is provided by a device and a method in which in one form, a single tapping pulse generates acoustic vibrations in the article and the acoustic vibrations in that article are subsequently determined and processed for determining the vibration characteristics of the article itself.

Contrary to the present microphone and signal processor which actually determine the vibration characteristics of the article, Schouenborg clearly teaches a device which includes a transducer in the form of a microphone for measuring the vibration in a glass tube 6 which vibrates after striking the surface of an egg (see Schouenborg, column 6, lines 1-7; column 5, lines 30-36; column 6, lines 3-21; and column 7, lines 25-30). Thus, microphone 117 or transducer 17 and electric device 22 measure a repetitive phenomena known as bouncing on the surface of the egg (column 6, lines 37-41) not the frequency spectrum (i.e., vibration characteristics) of the article itself which has been excited with a single tapping pulse. Consequently, Schouenborg fails to disclose or suggest a device which determines the vibration characteristics of the article itself.

With regard to Bliss, the present specification on page 1, lines 13-15 discuss Bliss as a device in which the extent of rebound after tapping is determined rather than the claimed acoustic resonance of the article (i.e., vibration) itself after the article has been excited with a tapping pulse.

With regard to Egli, Egli does not teach or suggest a device for determining vibration characteristics of vibrating articles. A person of ordinary skill in the art would have no motivation in either Schouenborg or Bliss to look to the teaching of Egli in order

to arrive at the invention recited in added claim 21 (corresponding to previously rejected claim 8).

Based on the foregoing, Applicants respectfully submit that added claims 14-22 and 24-27 are clear of the prior art.

By this Amendment, Applicants have added new claim 23 directed specifically to one form of the present invention in which the hinge element connection between the arm portion and the handle end provides a single tapping pulse upon excitation of the handle driving element. Applicants submit that claim 23 which depends from claim 14 is not obvious or taught by the prior art for at least the same reasons as discussed above and further for reciting additional elements not taught or suggested in the prior art of record.

Applicants gratefully appreciate the Examiner's indication of allowance subject matter of claims 5-7. By this Amendment, Applicants have rewritten claims 5-7 as new claims 28-30 with claim 28 being claim 5 rewritten in independent form.

In view of the foregoing, Applicants respectfully submit that the present application is now in condition for allowance.

END REMARKS